

VIRGIN RIVER BASIN
09408000 LEEDS CREEK NEAR LEEDS, UT

LOCATION.--Lat 37°16'03", long 113°22'12", in SW¹/₄SE¹/₄NE¹/₄ sec. 36, T. 40 S., R. 14 W., Washington County, Hydrologic Unit 15010008, on left bank 1,150 ft upstream from Leeds Ditch diversion, 2.1 mi north of Leeds, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi².

PERIOD OF RECORD.--October 1915 to June 1920 (fragmentary) in reports of Geological Survey; October 1964 to current year.

GAGE.--Water-stage recorder. Crest-stage gage since May 30, 1989. Elevation of gage is 4,000 ft above sea level, from topographic map. Prior to June 1920, at various sites and datums about 600 ft downstream; Oct. 28, 1964, to Aug. 20, 1967, water-stage recorder at site 1,000 ft downstream at different datum.

REMARKS.-- Records good except estimated daily discharges, which are poor. One diversion above station for domestic use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 12, 1964, reached a stage of 6.00 ft, former site and datum, discharge 2,980 ft³/_s from slope-area measurement of peak flow.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft³/_s, Aug. 3, 1988, gage height, 9.41 ft, from rating curve extended above 33 ft³/_s on basis of slope-area measurement; minimum daily discharge, 1.1 ft³/_s, Sept. 17, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/_s and maximum (*):

Date	Time	Discharge (ft ³ / _s)	Gage height (ft)	Date	Time	Discharge (ft ³ / _s)	Gage height (ft)
Jan. 26	1400	^a 73	2.94	Sep. 26	0500	^{a*} 108	*3.30

^a From rating curve extended above 33 ft³/_s on basis of slope-area measurement at gage height 9.41 ft.
Minimum daily discharge, 2.1 ft³/_s Oct. 1, 7-12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.8	2.9	3.1	7.3	5.4	6.0	5.8	7.9	6.2	3.9	2.9
2	2.3	2.7	2.9	3.3	7.1	5.4	6.1	5.8	8.0	6.0	3.8	3.4
3	2.3	2.9	2.9	8.7	6.5	5.4	6.3	5.8	7.9	6.1	4.0	3.5
4	2.2	2.7	2.8	5.3	6.2	5.3	6.2	5.7	8.0	5.9	4.7	3.6
5	2.2	2.7	2.9	4.8	6.1	5.2	6.0	5.6	8.2	5.7	4.1	3.1
6	2.2	2.7	3.2	4.6	6.0	5.3	6.0	5.5	8.4	5.6	3.8	3.5
7	2.1	2.7	2.9	5.3	5.9	5.2	6.0	5.5	8.5	5.5	3.6	3.1
8	2.1	2.7	2.9	4.4	5.9	5.2	6.1	5.5	8.8	5.4	3.6	3.0
9	2.1	2.7	2.9	4.3	5.7	5.2	6.1	5.5	8.5	5.3	3.6	3.3
10	2.1	2.7	5.9	4.3	5.6	5.4	6.1	5.5	8.4	5.1	4.5	3.0
11	2.1	2.7	8.4	4.1	5.6	5.4	6.1	5.4	8.2	5.1	4.0	2.9
12	2.1	2.7	4.2	4.4	5.6	5.5	6.2	5.3	8.3	5.0	5.0	2.8
13	2.2	2.7	3.8	4.9	5.4	5.6	6.1	5.2	8.6	5.0	3.9	2.9
14	2.2	2.7	3.7	4.5	5.4	5.7	6.0	5.2	9.0	4.8	3.7	3.1
15	2.2	2.7	3.6	^e 4.3	5.4	5.8	6.0	5.3	8.9	4.7	3.6	6.1
16	2.2	2.7	3.5	^e 4.0	5.4	5.8	6.0	5.4	8.5	4.6	3.6	3.5
17	2.3	2.8	3.6	4.0	5.4	5.8	5.9	5.6	8.1	4.6	3.6	3.3
18	2.3	2.9	^e 3.4	4.1	5.4	5.8	5.9	5.9	7.8	4.5	3.5	3.2
19	2.4	2.8	^e 3.3	4.3	5.4	5.8	6.0	6.5	7.7	4.5	3.4	3.1
20	2.4	2.8	^e 3.3	4.6	5.4	5.9	6.0	7.1	7.7	4.5	3.3	3.1
21	2.5	4.2	3.3	4.8	5.4	5.9	6.0	7.2	7.5	4.7	3.3	3.0
22	2.5	16	3.5	4.8	5.4	5.9	6.0	7.3	7.4	4.8	3.2	3.0
23	2.6	5.6	3.4	7.8	5.4	6.0	6.1	7.4	7.2	4.8	3.1	3.0
24	2.6	3.5	3.2	6.8	5.2	5.9	6.2	7.8	7.2	4.5	3.1	2.9
25	2.6	3.1	3.2	6.3	5.2	5.9	6.0	7.8	7.0	4.4	3.0	3.1
26	2.6	3.0	3.2	34	5.2	5.9	6.0	7.8	6.8	4.2	3.0	25
27	2.6	2.9	3.2	20	5.8	5.9	5.9	7.9	6.7	4.2	2.9	6.3
28	2.9	2.9	3.3	10	5.4	5.9	5.8	7.9	6.5	4.4	2.9	5.1
29	2.8	2.9	3.2	7.7	---	5.9	5.8	7.9	6.4	4.4	2.9	4.2
30	2.7	2.9	3.1	7.2	---	5.9	5.8	8.0	6.3	4.2	2.8	3.5
31	3.4	---	3.1	7.1	---	5.9	---	7.9	---	4.0	2.9	---
TOTAL	73.9	101.8	108.7	207.8	159.7	175.1	180.7	198.0	234.4	152.7	110.3	125.5
MEAN	2.38	3.39	3.51	6.70	5.70	5.65	6.02	6.39	7.81	4.93	3.56	4.18
MAX	3.4	16	8.4	34	7.3	6.0	6.3	8.0	9.0	6.2	5.0	25
MIN	2.1	2.7	2.8	3.1	5.2	5.2	5.8	5.2	6.3	4.0	2.8	2.8
AC-FT	147	202	216	412	317	347	358	393	465	303	219	249

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

	1984	1988	1967	1993	1980	1983	1969	1969	1973	1983	1988	1983
MEAN	4.00	4.11	4.68	4.68	6.77	9.55	9.77	10.8	13.5	10.8	7.20	4.70
MAX	9.16	10.8	26.6	12.2	52.0	36.3	33.1	28.7	38.1	34.3	21.6	12.5
(WY)	1984	1988	1967	1993	1980	1983	1969	1969	1973	1983	1988	1983
MIN	2.05	1.85	2.01	2.18	2.32	2.46	2.00	2.30	2.15	1.51	1.62	1.73
(WY)	1971	1978	1978	1991	1991	1977	1977	1977	1977	1977	1977	1972

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1965 - 1997

ANNUAL TOTAL			1278.5			1828.6						
ANNUAL MEAN			3.49			5.01				7.54		
HIGHEST ANNUAL MEAN										18.1		1980
LOWEST ANNUAL MEAN										2.20		1977
HIGHEST DAILY MEAN			16	Nov 22		34	Jan 26		412	Dec 6	1966	
LOWEST DAILY MEAN			1.9	Aug 30		2.1	Oct 1		1.1	Sep 17	1972	
ANNUAL SEVEN-DAY MINIMUM			1.9	Aug 29		2.1	Oct 6		1.3	Jul 10	1977	
ANNUAL RUNOFF (AC-FT)			2540			3630			5460			
10 PERCENT EXCEEDS			5.2			7.7			17			
50 PERCENT EXCEEDS			3.1			5.0			4.7			
90 PERCENT EXCEEDS			2.2			2.7			2.4			

^e Estimated